

TITLE

DIELECTRIC SUBSTRATES COMPRISING A POLYIMIDE CORE LAYER  
AND A HIGH TEMPERATURE FLUOROPOLYMER BONDING LAYER,  
AND METHODS RELATING THERETO

ABSTRACT

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An asymmetric multi-layer insulative film of improved internal  
adhesive strength is made by combining a layer of polyimide and a high-  
temperature bonding layer, the high-temperature bonding layer being  
derived from a high temperature base polymer made of  
10 poly(tetrafluoroethylene-co-perfluoro[alkyl vinyl ether]) (PFA) and  
optionally blended with from 0-60 weight percent poly(tetrafluoroethylene-  
co-hexafluoropropylene) (FEP). The polyimide and high-temperature  
bonding layer laminate optionally also contains a layer of unsintered,  
partially sintered, or totally sintered polytetrafluoroethylene (PTFE) bonded  
15 directly to the high-temperature bonding layer. In addition, the polyimide  
high-temperature bonding layer laminate may be adhered to a  
poly(tetrafluoroethylene-co-hexafluoropropylene) (FEP) adhesive primer  
layer to more effectively bond the polyimide core layer to the high-  
temperature bonding layer. This type of primer layer may also be used as  
20 a polyimide-to-metal bonding layer to assist bonding of the polyimide to a  
metal wire or metal layer.

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KK/dmm